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G-000-202 .4

**REMOVAL SITE EVALUATION TELECOMMUNICATIONS UPGRADE
PROJECT**

01/00/95

**FERMCO
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RSE**

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REMOVAL SITE EVALUATION
TELECOMMUNICATIONS UPGRADE PROJECT

FERNALD SITE OFFICE
U. S. DEPARTMENT OF ENERGY

JANUARY 1995

1.0 INTRODUCTION

The purpose of this Telecommunications Upgrade Project is to upgrade the existing telecommunications on the Fernald site. This project can be broken into three parts: PBX switch, cable plant, and LAN equipment. The existing Dimension PBX switch is out dated and spare parts are no longer manufactured and it will only be a matter of time until the existing spare parts will run out and the existing switch will be unrepairable. The cable plant and LAN equipment are required to obtain and upgrade telecommunication in areas that either do not have or require upgraded telecommunications. The cable plant will provide an independent backbone of wire and fiber optic cable that can be used and expanded. Unlike the existing system, this backbone will be independent of any existing buildings and will not be impacted by the demolition of any site buildings, as the existing system is currently.

The waste estimated to be generated for the project includes: 500 cu. ft. of soil; 20 cu. ft. of asbestos material; 600 lbs of conduit and wire from new installation; 100 lbs of wire from existing cable.

This Removal Site Evaluation (RSE) has been completed by the Department of Energy (DOE) under authorities delegated by Executive Order 12580 under Section 104 of CERCLA and is consistent with Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This RSE addresses the existing conditions with the Telecommunications Upgrade. This RSE has been completed to support the decision as to whether the project conditions warrant a removal action. Controls implemented to support this construction activity are also presented in the RSE to demonstrate that the proposed construction will not cause deterioration of the existing site conditions.

2.0 SOURCE TERM

The cable plant is located in a radiologically controlled area of the FEMP, therefore, the areas may be considered above the sitewide 100 dpm/100cm² control levels for beta/gamma. This material is considered low level radioactive waste and must be managed accordingly in order to mitigate the spread of airborne, soil and/or groundwater contamination.

The transite material used in several of the buildings contains asbestos. It could pose a hazard if damaged or improperly removed, allowing it to become friable which releases asbestos fibers that are hazardous when inhaled.

Consistent with 40 CFR 300.410 (a), the RSE includes a removal preliminary assessment which is based upon readily available information as described in 40 CFR 300.410(c). A RCRA Determination/Radiological Characterization was issued January, 1995 for the Telecommunication Upgrade Project and is attached.

3.0 EVALUATION OF THE MAGNITUDE OF THE POTENTIAL THREAT

Any transite that is removed shall be handled in accordance with site procedures for asbestos to prevent the release of fibers. The removal shall be planned and supervised by AHERA certified "Asbestos Hazard Abatement Contractor/Supervisor" and certified asbestos workers. The waste shall be wrapped in plastic or bagged,

and labeled as "Asbestos". These controls will prevent the release of and mitigate the threat from asbestos at the project site.

The management of additional waste from this project will be controlled by Site Standard Operating Procedure SSOP-0044 "Management of Soil, Debris, and Waste From a Project" and the approved work plan for Removal Action 17 "Improved Storage of Soil and Debris". All waste generated from the project will be monitored for radioactivity prior to final disposition. The following controls, among others, will be implemented during the construction of the Telecommunication Upgrade Project:

- The project will be conducted in accordance with approved "Project Specific Health and Safety Plan."
- Excess soil from this project will be stockpiled according to Removal Action 17 criteria.
- Physical barriers will be positioned around the work area to prevent unauthorized access.
- Protective clothing and respiratory protection will be provided for workers, as required.
- Plastic tarpaulins, bags, and appropriate containers will be readily available to contain radiologically contaminated materials and be properly labeled, as required.
- Runoff controls will be established, as required.

4.0 ASSESSMENT OF THE NEED FOR REMOVAL ACTION

Consistent with 40 CFR 300.410 of the NCP, the DOE shall determine the appropriateness of a removal action. The eight factors to be considered in this determination are listed in 40 CFR 300.415(b)(2). Based on the information presented above, the following of the eight criteria listed in the NCP applies to this project.

40 CFR 300.415(b)(2)(i)

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

40 CFR 300.415(b)(2)(v)

Weather conditions that may cause hazardous substances or pollutants or contamination to migrate or be released.

As discussed previously, the administrative measures taken in the field during this construction activity are expected to mitigate or prevent the threat of a release to the environment. Therefore, while the above criteria can be applied to the Telecommunication Upgrade Project, the level of threat is negligible and a removal action is not required.

5.0 APPROPRIATENESS OF A RESPONSE

Based on the evaluation of the above factors, it has been determined that a removal action will not be necessary and this project should be continued as a construction activity in support of the CERCLA remediation process and waste management. Furthermore, the controls planned in conjunction with this construction activity are adequate to mitigate any hazards at this site and to prevent deterioration of existing site conditions.



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INTEROFFICE MEMORANDUM

To: Joe Straub, MS64

Date: January 3, 1995

Location: Fernald

Reference:

From: Jerry Erfman, MS46 

FERMCO #: M:WPM:(WI):94-0103

Location: Fernald

Client: DOE DE-AC05-92OR21972

Extension: 738-6085

Subject: RCRA Determination for the
Telecommunication Project

c: Matthew Frost, MS51
Glenna Gerster, MS73
Harold Knue, MS28
LaVerne March, MS73
Kelly McGue, MS66
Dave Morris, MS 66
Bonnie Spencer, MS73
Shane Stierhoff, MS66
Rena Thiel, MS66
Dave Vigus, MS10
Carolyn Waugh, MS46
RCRA Operating Record, MS30
File Record Storage Copy 106.4.24.1
WPM Subject File

This determination has been prepared to support the Telecommunication Project. This determination specifically addresses the waste materials listed on the Project Waste Identification Disposition (PWID) form dated January 28, 1994.

This project involves the placement of six 10' X 12' environmentally regulated communication huts through out the FEMP site. There will be five huts installed in the process area and one hut installed in the non-process area. These huts will house intermediate distribution frames, voice and data cross connects, and LAN hubs.

Two waste streams will be generated from this project: soil and construction debris. A description of these waste streams, the associated characterization documentation, and directions for disposition by Waste Programs Management are provided below.



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INTEROFFICE MEMORANDUM

FERMCO No. M:WPM:(WI)94-0103
December 22, 1994
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SOIL, PWID, Section B, Item 1

This material meets the conditions specified in MEF # 2503 and is RCRA Non-Hazardous (a.k.a. Non-RCRA). The soil has been determined to contain less than 100 pCi/g U and should be managed in a category 1 soil pile in accordance with RA # 17. Contact Dave Morris at extension 6161 for assistance on getting soils to the appropriate soil pile.

CONSTRUCTION DEBRIS, PWID, Section D, Item 3

This material meets the conditions specified in MEF # 2623 attachment 1, and is RCRA Non-Hazardous (a.k.a. Non-RCRA). Construction debris consists of the following waste streams: metal, electrical wire and conduit, non-regulated asbestos (non-friable), paper, plastic, wood, glass, concrete, and asphalt.

INSTRUCTIONS FOR GENERATORS

Attached are the verification forms and container inventory attachments to be completed at the time of generation for each waste stream identified above. The soil which will be generated will not require a container inventory attachment since it will be managed in a soil stock pile.

The completed form must be submitted to Waste Characterization Section (WCS) for final signature. After obtaining final signature, a copy of the completed form must accompany the containers during transportation from the construction staging area to the holding area for final disposition.

SUMMARY

The waste with the exception of the soil, will have to be monitored by the Radiological Safety Group for proper radiological disposition.

If there are any questions, please call me at extension 6085 or C. S. Waugh at extension 6777.

JPE:tmw
Attachment

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**Fernald Environmental Management Project
MATERIAL EVALUATION FORM (MEF)**

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Verification Form

A. WASTE STREAM IDENTIFICATION		
1. Requestor: Joe Straub	2. Phone: 738-6196	3. Serial Number: 00680
4. Generation Event: <input type="checkbox"/> Original Generation <input checked="" type="checkbox"/> Additional Generation <input type="checkbox"/> Safe Shutdown Generation <input type="checkbox"/> Other (Describe):		5. Date Submitted: (see instruction note!) December 12, 1994
6. Material Description: <p align="center">SOIL</p>		
7. Process Description: <input type="checkbox"/> Documentation Attached This waste will be generated as a result of the installation of six telecommunication huts.		
8. Generation Location: Various locations		

B. WASTE STREAM TO VERIFY AGAINST		
1. MEF#: 2503	2. Material Description: SOIL	
3. Determination Date: 9-13-93	4. Determination: RCRA non-hazardous, (a.k.a. non-RCRA)	5. Hazardous Waste No(s). NONE
6. Rationale: This material matches the waste profile for this MEF		

Evaluation Section

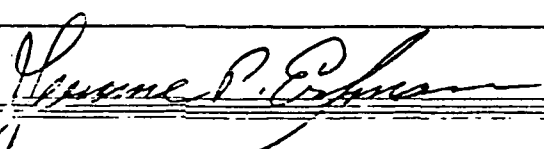
C. MATERIAL STATUS	
1. Evaluator: Jerry Erfman	2. Date: December 19, 1994
3. Summary <input type="checkbox"/> Material is characterized by MEF # <u>2503</u> . The total uranium activity concentration in the soil is less than or equal to 100 pCi/g, 5 pCi/g total radium, 50 pCi/g total thorium.	Material Determination: <input checked="" type="checkbox"/> RCRA Solid Waste (a.k.a Non-RCRA) <input type="checkbox"/> RCRA Hazardous Waste Hazardous Waste No(s):
<input type="checkbox"/> This material does not match the characterization of the referenced MEF. Submit a new MEF for this material immediately.	
Rationale: Based on process knowledge and/or sampling, there is no reason to suspect the waste to meet any of the definitions of the hazardous waste listings under OAC 3745-51-31 to 33, (in lieu of 40 CFR 261, subpart D) or exhibit any of the characteristics of hazardous waste under OAC 3745-51-21 to 23 (in lieu of 40 CFR 261, subpart C).	
Waste Characterization Approval signature: <i>Jerry Erfman</i> Date: <u>1-3-95</u>	

D. DISTRIBUTION	
Requestor: Joe Straub	Waste Characterization Files: Telecommunication project

Verification Form

A. WASTE STREAM IDENTIFICATION		
1. Requestor: Joe Straub	2. Phone: 738-6196	3. Serial Number: 00681
4. Generation Event: <input type="checkbox"/> Original Generation <input checked="" type="checkbox"/> XX Additional Generation <input type="checkbox"/> Safe Shutdown Generation <input type="checkbox"/> Other (Describe):		5. Date Submitted: (see instruction note!) December 12, 1994
6. Material Description: <p style="text-align: center;">MISC. CONSTRUCTION DEBRIS</p> <p>Material composition covered by this MEF consists of: concrete, asphalt, small amounts of soil, metal, wood, glass, paper, plastic, fiberglass, rubber, rope, anti-Cs, electrical wire/equipment.</p>		
7. Process Description: <input type="checkbox"/> Documentation Attached <p style="text-align: center;">This waste material will be generated as a result of the installation of six telecommunication huts.</p>		
8. Generation Location: <p style="text-align: center;">Various locations</p>		
B. WASTE STREAM TO VERIFY AGAINST		
1. MEF#: 2623	2. Material Description: MISC. CONSTRUCTION DEBRIS	
3. Determination Date: July 29, 1994	4. Determination: RCRA Non-Hazardous (a.k.a. Non-RCRA)	5. Hazardous Waste No(s): NONE
6. Rationale: <input type="checkbox"/> Extra page(s) attached <p style="text-align: center;">This waste material meets the requirements of the Attachment for this MEF</p>		

Evaluation Section

C. MATERIAL STATUS	
1. Evaluator: Jerry Erfman	2. Date: December 19, 1994
3. Summary <input type="checkbox"/> Material is characterized by MEF # <u>2623</u> . Inventory is revised to include the inventory shown on the associated inventory attachment.	Material Determination: <input checked="" type="checkbox"/> RCRA Solid Waste (a.k.a Non-RCRA) <input type="checkbox"/> RCRA Hazardous Waste Hazardous Waste No(s):
<input type="checkbox"/> This material does not match the characterization of the referenced MEF. Submit a new MEF for this material immediately.	
Rationale: Based on process knowledge and/or analytical data, there is no reason to suspect the waste to meet any of the definitions of the hazardous waste listings under OAC 3745-51-31 to 33, (in lieu of 40 CFR 261, Subpart D), or exhibit any of the characteristics of hazardous waste under OAC 3745-51-21 to 24, (in lieu of 40 CFR 261, Subpart C).	
Waste Characterization Approval Signature: 	Date: 1-3-95
D. DISTRIBUTION	
Requestor: Joe Straub	Waste Characterization Approval: Telecommunication Project

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1. MEF 2623

Verification Serial #: 00681

2. Date Completed:

3. Completed by:

MISC. CONSTRUCTION DEBRIS

4. Special Notes: (a) TOTAL NUMBER OF CONTAINERS EQUALS TOTAL IN LOT UNLESS INDIVIDUAL CONTAINERS SPECIFIED:

(b)

(c)

5. Key on Inventory Container Type:

DM = Drum or Over-Pack Drum;

SL = Sea-Land;

TK = Tank;

SM = small container (≤ 5 gal);

MC = Miscellaneous Container.

WB = Wood Box;

WM = White Metal Box.

Waste Characterization Name: JEROME P ERFMAN

Signature: _____

Requestor: Joe Straub

Facilities and Warehousing

Materials Control and Accountability:

Waste Characterization Files: Telecommunication Project

D. INVENTORY COUNT BY CONTAINER

[illegible]

**Fernald Environmental Management Project
MATERIAL EVALUATION FORM (MEF)**

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Verification Form

A. WASTE STREAM IDENTIFICATION			
1. Requestor: Joe Straub		2. Phone: 738-6196	
		3. Serial Number: 00683	
4. Generation Event: <input type="checkbox"/> Original Generation <input checked="" type="checkbox"/> Additional Generation <input type="checkbox"/> Safe Shutdown Generation <input type="checkbox"/> Other (Describe):		5. Date Submitted: (see instruction note!) December 12, 1994	
6. Material Description: NON-REGULATED ASBESTOS (Non-Friable)			
7. Process Description: <input type="checkbox"/> Documentation Attached This waste material will be generated as a result of the installation of six telecommunication huts.			
8. Generation Location: Various locations			
B. WASTE STREAM TO VERIFY AGAINST			
1. MEF#: 1351		2. Material Description: Non-Regulated Asbestos (Non-Friable)	
3. Determination Date: 3-9-92		4. Determination: Non-RCRA (a.k.a. RCRA non-hazardous)	
		5. Hazardous Waste No(s). NONE	
6. Rationale: The materials meet the conditions specified in MEF # 1351. Based on process knowledge and the location of the areas of generation, the material is not expected to be RCRA contaminated.			

Evaluation Section

C. MATERIAL STATUS	
1. Evaluator: Jerry Erfman	2. Date: December 19, 1994
3. Summary XX Material is characterized by MEF # 1351.	Material Determination: XX RCRA Solid Waste (aka Non RCRA) <input type="checkbox"/> RCRA Hazardous Waste Hazardous Waste No(s):
<input type="checkbox"/> This material does not match the characterization of the referenced MEF. Submit a new MEF for this material immediately.	
Rationale: Based on process knowledge and/or prior sampling, there is no reason to suspect the waste to meet any of the definitions of the hazardous waste listing under OAC 3745-51-31 to 33. (in lieu of 40 CFR 261, subpart D), or exhibit any of the characteristics of hazardous waste under OAC 3745-51-21 to 24. (in lieu of 40 CFR 261, subpart C).	
Waste Characterization Approval Signature: <i>Jerry P. Erfman</i> Date: <i>1-3-95</i>	
D. DISTRIBUTION	
Requestor: Joe Straub	Waste Characterization File: Telecommunication project

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Page of

1. MEF #: 1351 Verification Serial #: 00683

NON-REGULATED ASBESTOS (Non-Friable)

3. Completed by:

(b)

(c)

SM = small container (≤ 5 gal):

WB = Wood Box;

WM = White Metal Box.

Signature:

Facilities and Warehousing:

Waste Characterization Files: Telecommunication project

[illegible]

PROJECT WASTE IDENTIFICATION AND DISPOSITION (PWID) FORM
(Sheet 1 of 4)

A. General			
Project Title: TELECOMMUNICATION PROJECT		Date of Original PWID: 1-28-93	Current Revision:0
Project Location: Through out the FEMP site		CRU:RSO	Project Engineer/Phone #: Straub/6196
			PRIMARY WASTE
Summary Project Description: Installing 6 huts			
Additional detail provided in: <u>XX</u> Work Plan <u> </u> Work Order <u> </u> Other, specify: _____			

B. Excess Soils - Identification and Disposition				
Excess Soil Type	Volume cu. ft	Weight	Characterized By	Disposition By
1. Non-FCRA. Equal to or less than 100 Pci/g U, (Cat. I) (SSC1 0044, Section 1.1.1)	504		MEF Number 2503	RA # 17. STORAGE ON SITE
2.				
3.				
4.				
5.				
6.				
7.				
8.				

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PROJECT WASTE IDENTIFICATION AND DISPOSITION (PWID) FORM
(Sheet 2 of 4)

C. Debris - Identification and Disposition

Debris Type	Volume cu. ft.	Weight (kg)	Characterized By	Disposition By
1. Non-Insulated Asbestos Containing Material (non-friable) (SSOP 0044, Sec. 1.2.6)	20	500	MEF Number 1351	NTS
2. Electrical Equipment (wire, conduit, light, switches, etc.) (SSOP 0044, Sec. 1.2.7)	20	600	MEF Number 2008	NTS
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				

PROJECT WASTE IDENTIFICATION AND DISPOSITION (PWID) FORM
(Sheet 3 of 4)

D. Residues and Other Waste - Identification and Disposition

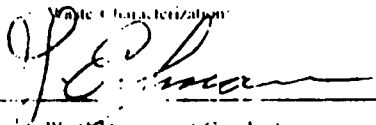
Residue/Waste Type	Volume cu. ft.	Weight	Characterized By	Disposition By
1. Construction Debris	40	1000	MEF Number 2621	NTS

E. Waste Waters - Identification and Disposition - (IDW)

Aqueous Waste Type	Volume (l)	Weight	Characterized By	Disposition By

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F. Approvals		
1. Project Engineer:	Date:	Comments:
2. Waste Programs Management:	Date:	Comments/Special Instructions:
Waste Characterization: 	Date: 1-3-95	Comments:
Waste Management Coordinator:	Date:	Comments:
5	Date:	Comments:

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